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Umbilical hemorrhage

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**UMBILICAL HEMORRHAGE: ETIOLOGY, PATH-
OLOGY, AND TREATMENT. REPORT
OF A CASE.** ✓

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HEMORRHAGE, occurring at birth or soon after, from the umbilicus may be caused either by loose ligature of the cord or laceration of the same, or from pathologic conditions present in the blood-vessels or blood of the infant. It is with the latter variety, or true umbilical hemorrhage, that this paper has to do. Cases of this kind, unless the hemorrhage takes place from the umbilicus itself, and not from laceration or faulty ligature of the cord, are comparatively rare. The following is a *résumé* of most of those recorded:

Mr. Watts, of Kent, England (*Gentleman's Gazette*, April, 1752), reported one case. Dr. Francis Minot, in April, 1852, reported statistics of 46 cases. Dr. Stephen Smith, in 1855, reported statistics of 79 cases. Dr. J. Foster Jenkins, in 1858, published a monograph giving histories of 178 cases, and Grandidier collected the histories of 202 cases.

Taking all the statistics together, about one-third of the cases occurred in females, and two-thirds in



males; but it is hardly probable that sex has anything to do with the liability to the hemorrhage.

The time of greatest danger of hemorrhage taking place seems to be after the cord has fallen, as only 18 of Jenkins' cases occurred before this, while the greatest number occurred between the fifth and fifteenth days.

The causes of umbilical hemorrhage are generally either a faulty condition of the blood, especially its feeble power of coagulating, or a pathologic condition of the vessel-wall, or both. The accident is sometimes referable to the hemorrhagic diathesis or hemophilia. As to the cause of the diathesis, syphilis may be said to be the chief one. The disease may not only so alter the blood in the infant as to destroy its coagulability, but also produces inflammatory condition in the walls of the vessels. Sir J. V. Simpson attributed many of his cases to this inflammation, which he believed caused thickening and infiltration, loss of contractility, and, therefore, a patulous condition of the vessel-walls.

Jaundice is sometimes accompanied by bleeding from the navel, and the icteric hue is nearly always present in umbilical hemorrhage. A condition of ill-health or anemia in the mother, due to any cause, produces a certain degree of a like condition in her offspring, and in this way may be an indirect cause of a liability to hemorrhage. Rarely, no cause can be found either in infant or parents.

The manner of occurrence of umbilical hemorrhage is interesting. Generally, without premonition, the first thing noticed is that the baby's clothes are soaked in blood, although this is some-

times preceded by jaundice. Out of 175 cases, 41 were so preceded. Colic, clayey stools and vomiting may also precede the bleeding. The blood may ooze slowly or rapidly. The most dangerous hemorrhages are those that occur at night, and in which a large amount of blood is lost before they are discovered.

As regards prognosis these cases are nearly always fatal, about ninety per cent. of infants so affected perishing. When jaundice and hemophilia are present the case is almost hopeless, while those cases having healthy parents, and in which the blood flows very slowly, stand a much better chance. Death occurs from exhaustion in from a few hours to three or four days.

The treatment may be summed up as follows:

1. Apply a compress of lint or sponge, soaked in an astringent solution, such as tannic acid, over the umbilicus.

2. If bleeding does not cease, cover the umbilicus with a thick layer of plaster-of-Paris, held in place until it hardens, and then bind this down with a bandage.

3. As a last resort employ the needles and ligature, passing two needles through the umbilicus at right angles, and wind the ligature around each in the form of a figure 8. These can be removed, if the infant survives, in four or five days and an iodoform-dressing applied.

4. A laxative should be given if indicated, and a few drops of brandy in sterilized milk as stimulation is needed.

At 9 P.M., October 5, I was called to attend L. S. in her confinement. She is an American woman, forty-one years of age, and has had four children, all of whom were and are healthy, the youngest being now ten years of age. After a long labor, due to defective pains, she gave birth to a boy weighing about seven pounds. At the time of birth he was nearly asphyxiated, but was finally brought around; the cord was carefully tied and washed, and the child placed in bed, where he was quietly sleeping when I left the house. On my visit next morning I found both mother and baby doing nicely. Early the next morning I was awakened by a messenger who said that the baby's cord was bleeding. I hastened to the house and found the child's clothing soaked with blood, and on removing it, saw that the blood oozed from the point of juncture of the cord and the floor of the umbilicus. I at once applied a compress, and the bleeding ceased in a few moments. The mother said that waking in the night, she lifted the baby, and in so doing felt something warm flow over her hand. Calling for a light, she saw that the baby's clothing was covered with blood, and at once sent for me. The blood was not clotted in the least, nor would it clot. On my call later on the same morning, October 7, I found that the bleeding at the umbilicus had ceased, but was told that the baby had vomited blood several times. For this I ordered grain-doses of tannic acid, to be repeated every hour until the vomiting ceased; and on calling that evening found that no more blood had been vomited. The next morning (October 8), I found that no more vomiting had occurred, but that the child had a jaundiced look. Later in the morning I was again called, and on reaching the house found the baby's clothes over the abdomen saturated with blood, and on removing them, I found the blood oozing rapidly from the umbilicus. I at once ap-

plied plaster-of-Paris, which stopped the bleeding, but the baby died in a few moments afterward. At the time of death the skin was deep-yellow in color, and there were numerous purpuric spots over the forehead.

I was unable to procure permission for a post-mortem examination. The fault in this case lay in the blood of the child, no doubt, as it would not coagulate.

A remarkable feature of the case was the occurrence of intestinal hemorrhage on stopping that at the umbilicus, and the re-establishment of the umbilical hemorrhage after the vomiting of blood had been controlled by the tannic acid.

I could obtain no history of syphilis or other constitutional disease in the parents.

